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A PROSPECTIVE OBSERVATIONAL STUDY OF THE IMPACT OF PATIENT VALUES ON COMPLIANCE AND OUTCOMES FOR PHYSIOTHERAPY TREATMENT FOR PELVIC FLOOR DYSFUNCTION

Hypothesis / aims of study

To determine whether patient values impact on treatment compliance and outcome for physiotherapy treatment for pelvic floor dysfunction.

Study design, materials and methods

A prospective observational study carried out in the uro-gynaecological physiotherapy department of Singleton Hospital. 127 participants were approached, and 97 agreed to participate. Oxford Grading System, Queensland Pelvic Floor Questionnaire and Personal Values Questionnaire were used to assess Pelvic floor functioning and patient values prior to a 6-month (one session a month) physiotherapy treatment programme, and pelvic floor function was assessed following the treatment.

Modified Oxford Grading is a validated objective measure that quantifies the strength of pelvic floor contraction.

Queensland Pelvic Floor Questionnaire is a validated self-administered female pelvic floor questionnaire, with questions related to bladder dysfunction, bowel dysfunction ,prolapse and sexual dysfunction.

Personal Values Questionnaire is well used self-completed measure of the values held by a patient, and is often used in psycho-therapy to determine the direction of a treatment. It covers 9 value domains: Family Relationships, Friendships/Social Relationships, Couples/Romantic Relationships, Work/Career, Educational Development, Recreation, Spirituality, Community/Citizenship, and Health/Physical Well-Being. Each domain section asks nine questions, each of which is rated on a five point scale producing a value strength score of between 4 and 20. A score of over16 suggests a strongly held value, around 12 suggests a weakly held value, and under 8 suggests a value that is not important to the participant. The questionnaire also has four questions that assess the reasons for holding the value giving a 'value nature' score', with positive scores reflecting personally-important values, and negative scores reflecting values held for the sake of others or society.

Results

The strength of patient values significantly predicted compliance with the intervention, but the type of value (personally-valued as opposed to socially-held) predicted outcome.

Figure 1 displays the mean strength of value score for the nine value domains for both the participants who completed the treatment, and those who did not. To determine which of these values predicted whether the participant would complete the treatment a backwards stepwise logistic regression was performed with the nine value domain scores as predictors, and completion and non-completion as the target. This revealed that five of the value domains remained in a model that significantly predicted completion $X^2 = 12.23$, $p < 0.05$. Of these predictors in the final model, the individual odds ratios of increasing the probability of completion of holding a value 1 point higher in strength were: social (odds ratio = 1.36, $p = 0.065$), work (odd ratios = 1.15, $p = 0.062$), education (odd ratios = 1.16, $p = 0.073$), recreation (odds ratio = 1.25, $p = 0.089$), and health (odds ratio = 1.32, $p = 0.042$). Thus, while all contributed to the statistical significance of the model, only health values individually significantly predicted completion of treatment.
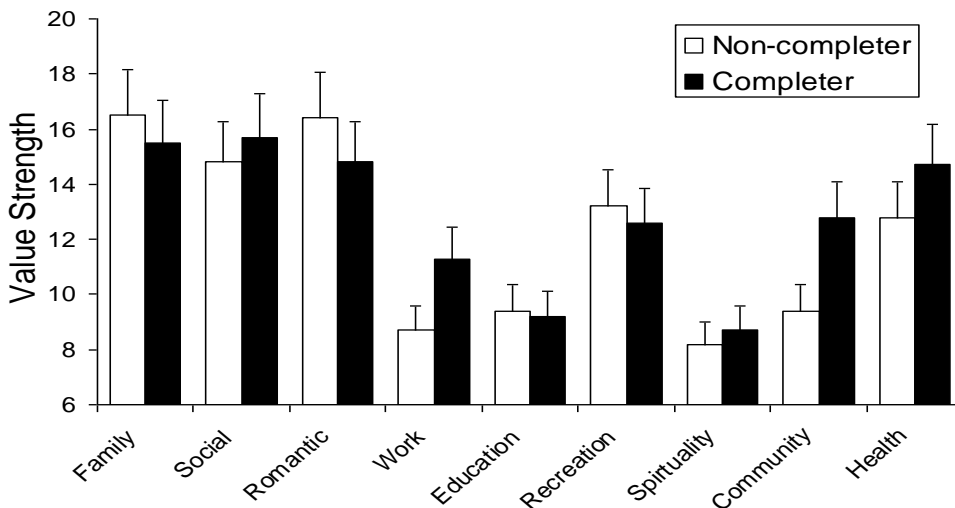
Figure 1

Table 1 displays the Spearman's correlations between the value strengths and type and the improvement in the objective (Oxford) and subjective (Queensland; scores reversed to make positive scores an improvement) overall pelvic floor symptoms. Inspection of these correlations reveals that the strength of the values held did not predict improvement in either the objectively- or subjectively-rated symptoms. However, there were significant relationships between the type of the values held and improvement for Community and Health values, with more personally-held values (as opposed to socially-held values) being associated with improvement in both type of rated symptoms.

Table 1

		Objective	Subjective
Family	Strength	-.001	.121
	Type	.379	.245
Social	Strength	-.229	.045
	Type	.155	.265
Romantic	Strength	-0.82	.045
	Type	.228	.323*
Work	Strength	-.179	.114
	Type	-.070	.178
Education	Strength	.115	.112
	Type	.065	.082
Recreation	Strength	.220	-.109
	Type	.064	.108
Spirituality	Strength	.209	.207
	Type	.333	.387**
Community	Strength	-.005	-.209
	Type	.330	.462***
Health	Strength	.298	.143
	Type	-.075	.465***

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

Interpretation of results

The key results were that the strength of the patients' values in a number of domains, social, work, education, recreation, and especially health predicted patients' ability to fully comply with the treatment. However, the strength of values did not predict the outcome of the intervention in those who fully complied. Rather, it was the manner in which the values were held, that is as personally-valued (as opposed to being held for the sake of others) that predicted improvement in pelvic floor function – both in terms of objective and subjective evaluations of function.

Concluding message

Patient values impact on physiotherapy adherence and outcomes, and should be considered as part of future assessment/screening procedures.

Disclosures

Funding: nil **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Swansea University Psychology department ethical review **Helsinki:** Yes **Informed Consent:** Yes